– 50] and insert in lieu thereof the phrase -- 44, 46, 48 and 50--.

12. Page 5, line 27, please delete the first occurrence of the phrase [54 – 60] and insert in lieu thereof the phrase -- 54, 56, 58 and 60--.

13. Page 5, line 28, please delete the first occurrence of the phrase [62 – 68] and insert in lieu thereof the phrase -- 62, 64, 66 and 68--.

14. Page 5, line 29, please delete the first occurrence of the phrase [54 – 60] and insert in lieu thereof the phrase -- 54, 56, 58 and 60--.

15. Page 5, line 30, please delete the first occurrence of the phrase [44 – 50] and insert in lieu thereof the phrase -- 44, 46, 48 and 50--.

16. Page 5, line 31, please delete the first occurrence of the phrase [70 – 76] and insert in lieu thereof the phrase -- 70, 72, 74 and 76--.

17. Page 5, line 31, please delete the first occurrence of the phrase [62 – 68] and insert in lieu thereof the phrase -- 62, 64, 66 and 68--.

18. Page 5, line 32, please delete the first occurrence of the phrase [54 – 60] and insert in lieu thereof the phrase -- 54, 56, 58 and 60--.

19. Page 6, line 20, please delete the first occurrence of the reference numeral 10 and insert in lieu thereof the reference numeral -- 22--.

20. Page 6, line 21, following the phrase "guide assembly" please insert the phrase – 36, as seen in Fig. 3--.

## REMARKS

Claims 1 through 20 stand rejected.

Claims 1 through 6, 8 and 9 and 11 through 20 remain in the application.

**Drawing Objection.**

The Examiner objected to the drawings as failing to comply with 37 CFR 1.84(p)(4) because reference character "30" has been used to designate both an access door and other image forming parts (see Figs. 2 and 4).

Applicant has amended Figs. 1 and 2 eliminating one occurrence of the reference numeral "30" in each view. The only reference to reference numeral "30" now found in the specification is located in the last line of page 4 and provides "The printer 24 also includes a hinged top functioning as an access door 30". No new matter is added.

In Fig. 1, access door 18 is not shown open in broken line and it is unclear what the broken line in actually depicted (it is not a typically constructed toner cartridge 20). Clarification and amendment is suggested.

Applicant has amended the specification at page 4 line 24 so that it now reads with respect to access door 18: "The access door 18 provides access to the interior of printer 12 for, inter alia, loading and unloading of a printing

consumable cartridge." No new matter is added.

Proposed drawing corrections are submitted herewith to the Official Draftsman and copies are provided herein for the Examiner's review. No new matter is added.

Applicant respectfully submits that the grounds for objection to the drawings as failing to comply with 37 CFR 1.84(p)(4) are now moot and applicant requests that such objection be withdrawn.

**35 U.S.C. §102 Rejection.**

The Examiner has rejected Claims 1 - 3, 6, 10-14, 16, 19 - 20 under 35 U.S.C. 102(b) as being anticipated by Matsunaga (JP#04-184464).

The Examiner asserts that Matsunaga teaches an imaging system comprising a plurality of consumable replaceable toner cartridges 5A, 5B, 5C, and 5D which are insertable into an opening (no reference numeral) in the imaging system via a guide and gear system 10A-10D and 23, 22, 19. The plurality of cartridges are mounted in a rotatable carousel having a door 30. If a toner end detection is detected via sensor 24,25, a cartridge is automatically ejected out of the image forming system from the opening. An access door 30 which is openable and closable is provided remote from the actual opening in which the toner cartridges pass. As seen in Fig. 6, the toner cartridge is guided into position through the opening with the access door in the closed position.

Applicant respectfully submits that the rejection of Claims 1 - 3, 6, 10 - 14, 16, 19 - 20 under 35 U.S.C. 102(b) as being anticipated by Japanese Publication No. 04-184464 to Matsunaga is moot in light of Applicant's amendment of the independent Claims 1 and 13.

Applicant has amended Claims 1 and 13 to recite a "consumable-containing cartridge insertable into a guide assembly, the guide assembly adapted to receive the consumable-containing cartridge as it is inserted through the cartridge opening of the imaging system housing, **the guide assembly adapted to guide the consumable-containing cartridge to into an in-use position within the cartridge holding assembly"**. Emphasis added.

Similarly, Applicant has amended Claim 20 to recite a method of loading printing consumables in an imaging system including "inserting the consumable-containing cartridge into the printing consumable loading assembly through the cartridge opening formed in the system housing", and "receiving the consumable-containing cartridge in the cartridge holding assembly of the guide assembly as it is inserted through the cartridge opening of the imaging system housing" and "**guiding the consumable-containing cartridge into an in-use position within the cartridge holding assembly**". Emphasis added.

The second paragraph of the present application at page 5 as amended provides:

> Referring to Fig. 3, the loading assembly 32 also includes a guide assembly 36 adapted to receive and grasp the consumable-containing cartridge 34 as it is inserted through the opening 35 in the printer housing. The guide assembly 36 can be constructed in accordance with known cassette guiding systems, such as that shown in U.S. Patent No. 5,757,578 to Shimoyama et al., the specification and claims of which are incorporated by reference herein.
>
> U.S. Patent No. 5,757,578 to Shimoyama et al. teach:
>
> A cassette holder 2 (guide assembly). . . fixed to a chassis 8 and to a chassis 10. When the tape cassette 1 is inserted into the DAT recorder as shown in FIG. 2A , (imaging system), the cassette holder 2, (guide assembly) is moved with the tape cassette 1, (consumable-containing cartridge) in an insert direction relative to the chassis 8 and 10. After this, when the tape cassette 1 (consumable-containing cartridge) is in the loaded position shown in FIG. 2B, the cassette holder 2 (guide assembly is brought into a position at which . . . the tape cassette 1 (consumable-containing cartridge) is placed at a read/write position within the DAT recorder, (in an in-use position within the cartridge holding assembly).

Shimoyama et al. at col.1, lines 26 – 34, **parenthetical material added**.

Japanese Publication No. 04-184464 to Matsunaga teaches the conveyance of a consumables cartridge in and out of, presumably a consumables deposit bay, by means of cartridge conveying gears.

Matsunaga does not teach a "guide assembly adapted to guide the consumable-containing cartridge to into an in-use position **within** the cartridge holding assembly". To the extent that Matsunaga defines any structure akin to a "guide assembly" such structure would be described as a bay which is static and does not move with displacement of the cartridge towards an in-use position rather it simply waits for the insertion of the cartridge into an in-use position within the bay by cartridge conveying gears.

Matsunaga does not teach a consumables cartridge "insertable into a guide assembly". Rather, Matsunaga teaches co-operational engagement of cartridge conveying gears of a consumables cartridge and a driven gear.

Matsunaga does not teach "a guide assembly adapted to receive the consumable-containing cartridge". Rather, Matsunaga teaches the conveyance of a consumables cartridge by the co-operational engagement of cartridge conveying gears.

It is well-established that for a claim properly to be rejected under 35 U.S.C. §102, every element of the claimed invention must be present in the cited reference. As set forth above, Matsunaga fails to teach every element of Applicant's claimed invention as claimed in Claims 1, 13 and 20 as amended. Insofar as Matsunaga fails to teach every element of Applicant's claimed invention as claimed in Claims 1, 13 and 20 as amended, it follows that

Matsunaga fails to teach every element of those claims that depend from Claims 1 and 13 including Claims 2, 3, 6, 10 - 14, 16 and 19.

Applicant respectfully submits that any rejection under 35 U.S.C. §102(b) as applied to Claims 1 and 13 as being anticipated by Matsunaga is traversed.

**35 U.S.C. §103 Rejections.**

1. The Examiner has rejected Claims 4 - 5, 15 under 35 U.S.C. 103(a) as being unpatentable over Matsunaga, Japanese Publication No. 04-184464, in view of Tani et al.

Applicant respectfully submits that the amendment of Claims 1 and 13 render the rejection of Claims 4 - 5, 15 under 35 U.S.C. 103(a) moot.

The Examiner asserts that Matsunaga discloses everything claimed except a display which will display the toner end signal. Tani et al. teach an imaging system having a replaceable toner cartridge 27 insertable into an opening 23a. When it is detected by a sensor 22 that a toner is nearly depleted, a message on a display will inform the operator to supply toner and that it would have been obvious to one of ordinary skill in the art at the time the invention was made to display a toner end signal to the operator because the operator can be informed of the status of the imaging system.

As previously set forth, Matsunaga teaches neither a "guide assembly adapted to guide the consumable-containing cartridge to into an in-use position within the cartridge holding assembly", a consumables cartridge "insertable into a guide assembly" nor "a guide assembly adapted to receive the consumable-containing cartridge". As such the primary reference fails to disclose "everything claimed except a display which will display the toner end signal".

Applicant respectfully submits that any rejection of Claims 4 – 5 or 15 under 35 U.S.C. 103(a) as being unpatentable over Matsunaga, Japanese Publication No. 04-184464, in view of Tani et al. is hereby traversed.

2. The Examiner has also rejected Claims 1, 6 - 9, 13 and 16 - 18 under 35 U.S.C. 103(a) as being unpatentable over Kitajima et al. in view of Kasamura et al.

The Examiner asserts that Kitajima et al. teach an imaging system comprising a plurality of replaceable toner cartridges 1, a plurality of openings 2, and **guides** (such as the walls of the openings) which guide the cartridge into an in-use position. Access doors 100b are openable and closable so as to gain access to the image forming parts and is completely unrelated to the toner cartridge loading system. The toner cartridges are configured to be loaded while the access door is in the closed position. Specifically, Kitajima et al. teach everything claimed except the cartridges and openings having registration key/fin mechanisms which allow an appropriate cartridge to be loaded. Kasamura et al.

teach an imaging system having a replaceable toner cartridge 32 which is insertable into an opening 23a in the imaging system. The cartridge has a fin 33 which mates with a slot 24 of the opening so that an appropriate cartridge can be inserted into the system. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the cartridges in Kitajima et al. with the fin/slot mechanism in Kasamura et al. because containers having different color toner can always be inserted in the correct dispensing location.

Applicant respectfully submits that the amendment of Claims 1 and 13 render the rejection of Claims 1, 6 - 9, 13 and 16 - 18 under 35 U.S.C. 103(a) as being unpatentable over Kitajima et al. in view of Kasamura et al., moot.

Neither Kitajima et al. nor Kasamura et al., teach a "guide assembly adapted to guide the consumable-containing cartridge to into an in-use position **within** the cartridge holding assembly". Similar to Matsunaga, Kitajima et al. defines a static structure (such as the walls of the openings) and does not move with displacement of the cartridge towards an in-use position rather it too simply awaits insertion of the cartridge into an in-use position within the bay.

Each of Applicants' independent claims recite structure not found in Kitajima et al. nor Kasamura et al.

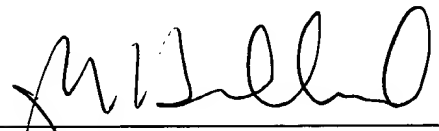
Applicant respectfully submits that any rejection of Claims 1, 6 - 9, 13 and 16 - 18 under 35 U.S.C. 103(a) as being unpatentable over Kitajima et al. in view of Kasamura et al. is hereby traversed.

**Conclusion.**

Applicant believes the application is in condition for allowance and respectfully requests the same. If the Examiner is of a differing opinion he/she is hereby requested to conduct a telephonic interview with the undersigned attorney.

Respectfully submitted this 2nd day of April, 2003.

(Phillips et al.)



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1. (Amended) In an imaging system including a system housing and a cartridge opening formed in the system housing, a printing consumable loading assembly comprising:

a cartridge holding assembly including a guide assembly, the cartridge holding assembly connected to the imaging system within the housing; and

a consumable-containing cartridge insertable into the guide assembly, the guide assembly adapted to receive the consumable-containing cartridge as it is inserted through the cartridge opening of the imaging system housing, the guide assembly adapted to guide the consumable-containing cartridge to into an in-use position within the cartridge holding assembly.

6. (Amended) A printing consumable loading assembly according to claim 1 further comprising a plurality of consumable-containing cartridges insertable into the cartridge holding assembly of the guide assembly, the guide assembly adapted to receive the plurality of consumable-containing cartridges when inserted through the cartridge opening of the imaging system housing, the guide assembly adapted to guide the plurality of consumable-containing cartridges into an in-use position within the cartridge holding assembly.

12. (Amended) A printing consumable loading assembly according to claim 1, further comprising a hinged door over the cartridge opening in the system housing.

13. (Amended) An imaging system comprising [the following]:

an imaging system housing;

the imaging system housing including at least one cartridge opening;

a printing consumable loading assembly including,

a cartridge holding assembly including a guide assembly, the cartridge holding assembly connected to the imaging system within the housing; and

a cartridge holding assembly including a guide assembly, the cartridge holding assembly connected to the imaging system within the housing; and

at least one consumable-containing cartridge insertable into the cartridge holding assembly of the guide assembly, the guide assembly adapted to receive the at least one consumable-containing cartridge as it is inserted through the at least one cartridge opening of the imaging system housing, the guide assembly adapted to transport the consumables cartridge into an in-use position within the cartridge holding assembly.

20. (Amended) A method of loading a consumable-containing cartridge in an imaging system including an imaging system housing including a cartridge opening formed in the system housing and a printing consumable loading assembly including a guide assembly having a cartridge holding assembly, the guide assembly aligned with the cartridge opening of the imaging system housing, the method comprising the following steps:

inserting the consumable-containing cartridge into the printing consumable loading assembly through the cartridge opening formed in the system housing; and

receiving the consumable-containing cartridge in the cartridge holding assembly of the guide assembly as it is inserted through the cartridge opening of the imaging system housing; and

guiding the consumable-containing cartridge into an in-use position within the cartridge holding assembly.

**Replacement paragraph for the first paragraph on page 5, beginning at line 1, with changes incorporated.**

Printing consumables loading assembly 32 is shown in detail in FIG. 3. The loading assembly 32 includes a consumables cartridge 34 adapted to contain a consumable printing material, such as toner. An opening 35 is provided in the outer housing of the printer 24, as shown in Fig. 2. The size and shape of the opening 35 is chosen to permit the consumable-containing cartridge 34, seen in Fig. 2, to pass therethrough.

B5 Cont

**Replacement paragraph for the second paragraph on page 5, beginning at line 7, with changes incorporated.**

Referring to Fig. 3, the loading assembly 32 also includes a guide assembly 36 adapted to receive and grasp the consumable-containing cartridge 34 as it is inserted through the opening 35 in the printer housing. The guide assembly 36 can be constructed in accordance with known cassette guiding systems, such as that shown in U.S. Patent No. 5,757,578 to Shimoyama et al., the specification and claims of which are incorporated by reference herein. The guide assembly 36 guides the consumable-containing cartridge into an in-use position within a printing consumable holding assembly 38, in the same way that a cassette guide assembly places a tape cassette in a read-write position. As is known in the art, a series of spring-loaded levers and motor-driven cams cooperate to guide the cartridge 34 into its in-use position and to eject the cartridge 34 from the holding assembly 38.

**Replacement paragraph for the third paragraph on page 5, beginning at line 19, and carrying over to page 6, lines 1 through 3, with changes incorporated.**

FIG. 4 illustrates imaging system 22 shown as printer 24 including a loading assembly 42 adapted to accommodate a plurality of consumable-containing cartridges. The loading assembly 42 includes a plurality of openings 44, 46, 48, and 50 in the housing of the printer 40. In an example, a registration key mechanism 52 is provided on the openings 44, 46, 48 and 50 in the housing and the consumable-containing cartridges 54, 56, 58, and 60, whereby respective consumable-containing cartridges 54, 56, 58 and 60 can fit only into corresponding openings 44, 46, 48 and 50 in the system housing. The registration key mechanism 52 includes a respective fin 62, 64, 66, and 68 on each of the consumable-containing cartridges 54, 56, 58 and 60, with the shape and position of the fins 62, 64, 66 and 68 indicating a particular aspect of the consumable within the respective cartridges 54, 56, 58 and 60. Respective slots 70, 72, 74, and 76 are then provided contiguous with each of the openings 44, 46, 48 and 50, with the slots 70, 72, 74 and 76 corresponding in shape and position to the fins 62, 64, 66 and 68 on the respective consumable-containing cartridges 54, 56, 58 and 60. Mechanisms for a guide assembly are provided for each of the cartridge types near each of their associated openings, and a holding assembly is provided to maintain the cartridge in an in-use position, as illustrated in the foregoing embodiment.

B5 Cont'd.

**Replacement paragraph for the second full paragraph on page 6, beginning at line 19, with changes incorporated.**

As illustrated in FIGS. 2 and 4, the loading assembly of the present invention can include a control actuator 94 connected to the imaging system 22 and to the guide assembly 36, as seen in Fig. 3. The control actuator 94 is connected to the ejection mechanism of the guide assembly to selectively eject a consumable-containing cartridge from the holding assembly. The actuator 94 allows a printer operator to selectively eject cartridges for any reason. For example, the loading assembly can include a sensor 96 adapted and constructed to sense the quantity of consumable within the consumable-containing cartridge, with a display 92 connected to the sensor 96 in a known manner. The sensor 96 operates in any suitable, known, manner, such as basing consumable quantity on photoconductor rotations, or on dot counts. The display 92 displays status of the consumable in the cartridge, allowing the user to monitor consumable levels and replace consumable-containing cartridges as necessary.